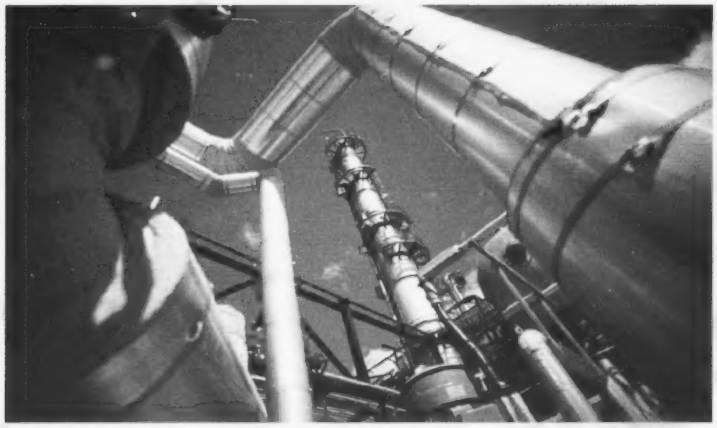

INDUSTRY PROFILES

Mining and Oil and Gas Extraction Industry

June 2013

Alberta

Overview:

The Mining and Oil and Gas Extraction industry[1] in Alberta includes companies involved in activities such as:

- exploring for crude petroleum and natural gas;
- drilling, completing and equipping wells;
- operating separators, emulsion breakers, desilting equipment and field gathering lines for crude petroleum;
- mining for coal, metal ore, and non metallic mineral mining and quarrying; and
- other activities in the preparation of oil and gas up to the point of shipment from the producing property.

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[1] North American Industry Classification System (NAICS) groups 211, 212, 213

Section A: Business Environment

1. 2012 Employment and Unemployment Numbers and Rates:

	Alberta	Mining and Oil and Gas Extraction Industry
Number of employed	2,149,600	173,500
Percent employed in the industry		8.1%
Number of unemployed	103,800	5,300
Unemployment rate	4.6%	3.0%

Data Source: Statistics Canada, Labour Force Survey, CANSIM Table 282-0008, 2013

For more information on employment numbers or for a historical comparison, please go to the Labour Force Statistics[2] or Statistics Canada[3] websites.

2. Industry's Growth:

- This industry accounted for 8.1% of total employment in Alberta in 2012.
- Employment in the Mining and Oil and Gas Extraction industry is expected to grow at an average rate of 2.2% from 2011 to 2015.
- This industry is expected to account for 6.9% of total employment in Alberta in 2015.

For more information, see the *Alberta Modified Canadian Occupational Projection System (COPS) Outlook 2011 – 2015, Industry Employment Outlook*[4] online and the Alberta Learning Information Service (ALIS)[5] website for descriptions of industries.

[2] See http://www.cac.alberta.ca/lmi
[3] See http://www.statcan.gc.ca
[4] See http://cac.alberta.ca/labour-and-immigration/labour-market-information/labour-market-forecasts.aspx
[5] See http://www.alis.alberta.ca

3. Facts, Trends and Outlook:

According to Statistics Canada's National Economic Accounts, the Mining and Oil and Gas Extraction industry accounted for 19.2% of Alberta's Gross Domestic Product in 2011, down from 22.8% in 2001. The industry's share of total employment increased from 5.5% in 2002 to 8.1% in 2012.

Employment in 2012 was 14.8% higher than its level in 2011. Over the last ten years, employment (the total number of employees and self-employed people) increased from 92,900 people in 2002 to 173,500 people in 2012. Data on the number of employees and self-employed people were not available for this industry. However, there were 160,800 employees in the Forestry, Fishing, Mining and Oil and Gas industry in 2012 of whom 94.8% were permanent and 5.2% were temporary. Self employed people accounted for 9.4% of total employment in the Forestry, Fishing, Mining and Oil and Gas industry in 2012.

Characteristic	Alberta	Forestry, Fishing, Mining and Oil and Gas Extraction*
Median Retirement Age (years)	63.7	56.7
Average Number of Hours Worked per Week	38.2	46.4
Multiple Jobholders (% of total employment)	5.7%	3.0%
Average Job Tenure (months)	88.8	74.4
Employees Under Union Coverage (%)	23.5%	11.4%
Employees Working Overtime per Week (%)	26.0%	38.4%

Data Source: Statistics Canada, Labour Force Survey, CANSIM Tables 282-0022, 282-0031, 282-0042, 282-0078 and 282-0084, 2013, and custom tabulation (median retirement age)

* Mining and Oil and Gas Extraction is grouped with Forestry, Fishing and Logging with Support Activities for sample size.

Note: The percentage of multiple jobholders in Alberta is obtained by dividing the number of multiple jobholders in Alberta by total employment in Alberta. The percentage of multiple jobholders in the industry is obtained by dividing the number of multiple jobholders in the industry by total employment in the industry. This calculation method also applies to the percentage of employees under union coverage and the percentage of employees working overtime per week.

According to *Alberta Occupational Demand Outlook 2012-2016*[6], employment growth in the following occupations is expected to exceed 2.4%, the average for all occupations: Supervisors, mining, oil and gas; Underground miners, oil and gas drillers and related workers; Mine service workers and operators in oil and gas drilling; and Primary production labourers.

4. Size of Businesses in Alberta and the Industry:

Establishment Size	Businesses in Alberta		Businesses in Forestry, Fishing, Mining and Oil and Gas Extraction*	
	Number of Employees	%**	Number of Employees	%**
Less than 20 employees	633,200	35.1%	34,100	21.2%
20 to 99 employees	634,600	35.2%	47,300	29.4%
100 to 500 employees	342,100	19.0%	38,300	23.8%
Over 500 employees	194,400	10.8%	41,000	25.5%

Data Source: Statistics Canada, Labour Force Survey, CANSIM Table 282-0076, 2013
*Numbers and percentages refer to Fishing, Mining and Oil and Gas Extraction, and Forestry and Logging with Support Activities. These are grouped together for establishment size.
** Percentages may not add up to 100 due to rounding.
Note: Statistics Canada's survey methodology for determining establishment size differs from the one it uses in the Labour Force Survey to determine total employment. As a result, the total number of employees by establishment size will not be the same as total employment in the combined industry.

[6] See http://eae.alberta.ca/labour-and-immigration/labour-market-information/labour-market-forecasts.aspx

Section B: Human Resources Profile

1. Occupational Information:

Some examples of occupations in the Mining and Oil and Gas Extraction industry include:

- mining engineer;
- blaster;
- drilling and service rig manager;
- petroleum engineer; and
- drilling rig leasehand/floorhand.

For a complete listing of all occupations related to this industry as well as detailed information on education and skill requirements, visit the Alberta Occupational Profiles[7] website.

2. Demographics: Gender and Age:

According to the Labour Force Survey, the gender breakdown in the Mining and Oil and Gas Extraction industry in 2012 was as follows:

- women employed: 43,300 people, or 25.0%
- men employed: 130,300 people, or 75.0%

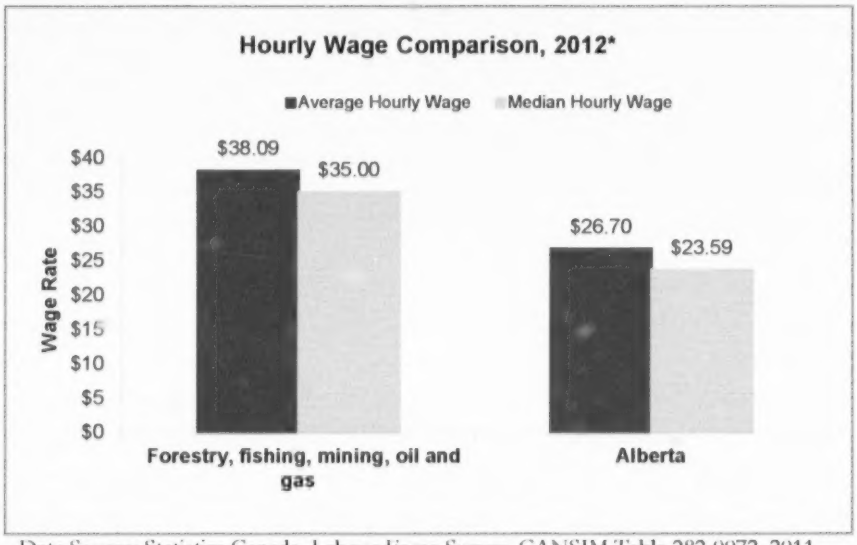
In Alberta, women accounted for 44.8% and men made up 55.2% of total employment.

Age Characteristics	Employment in Alberta		Employment in Mining and Oil and Gas Extraction	
	Number	%	Number	%*
15-24 years	315,500	14.7%	16,900	9.7%
25-54 years	1,458,300	67.8%	134,700	77.6%
55 years and over	375,800	17.5%	21,900	12.6%

Data Source: Statistics Canada, Labour Force Survey, CANSIM Table 282-0008, 2013
* Percentages may not add up to 100 due to rounding

[7] See http://www.alis.alberta.ca/occinfo

3. Wages:



Data Source: Statistics Canada, Labour Force Survey, CANSIM Table 282-0072, 2011
*Wages pertain to Mining and Oil and Gas Extraction, Fishing, and Forestry and Logging with Support Activities, which are grouped together for sample size reasons.
Note: The average hourly wage is obtained by dividing the sum of the wages of all the employees by the total number of employees. The median hourly wage is that wage below which half the employees earn and above which half the employees earn.

Wage and Salary Information for Selected Occupations

Occupation	Average Hourly Wage			Average Annual Salary
	Starting Average	Overall Average	Top Average	
Petroleum engineer	$ 49.99	$ 62.31	$ 72.12	$ 125,405
Petroleum, gas and chemical process operator	$ 26.04	$ 37.98	$ 43.85	$ 81,622
Truck driver (oil and gas extraction)	$ 24.50	$ 28.59	$ 31.84	$ 66,434

Data Source: 2011 Alberta Wage and Salary Survey

For more information on the 2011 Alberta Wage and Salary Survey, refer to the WAGEinfo[8] webpage. For job descriptions, duties, required skills and education for specific occupations in the Mining and Oil and Gas Extraction industry, visit the ALIS[9] website.

[8] See http://www.alis.alberta.ca/wageinfo
[9] See http://www.alis.alberta.ca

Section C: Additional Information

Links to Selected Associations in Industry:

- Canadian Association of Oilwell Drilling Contractors (http://www.caodc.ca)
- Canadian Association of Petroleum Producers (http://www.capp.ca)
- Canadian Institute of Mining, Metallurgy and Petroleum (http://www.cim.org)
- Coal Association of Canada (http://www.coal.ca)
- Petroleum Human Resources Council of Canada (http://www.petrohrsc.ca)
- Petroleum Services Association of Canada (http://www.psac.ca)
- Petroleum Technology Alliance Canada (http://www.ptac.org)